

Claims

1. Electronic educational game set comprising communicating elements (4, 5, 6, 8), each having a radio-frequency tag (10) provided with an individual identification code (ID), and a game board (1) comprising a digital processing circuit (15) connected to a plurality of antennas (14) arranged such as to form a sensor matrix for detecting the presence, type and position of the communicating elements, set characterized in that the game board 10 comprises a plurality of radio-frequency readers (13₁ to 13_m) respectively connected to corresponding input/output terminals of the digital processing circuit (15), each radio-frequency reader (13) being connected to an associated group of antennas (14₁ to 14_n).
- 15 2. Set according to claim 1, characterized in that it comprises a multiplexer (16) between each radio-frequency reader (13) and the associated group of antennas (14).
- 20 3. Electronic educational game set comprising communicating elements (4, 6, 8) each having a radio-frequency tag (10) provided with an individual identification code (ID), and a game board (1) comprising a digital processing circuit (15) connected to a plurality of antennas (14) arranged such as to form a sensor matrix for detecting the presence, type and position of the communicating elements, set characterized in that the game board (1) is 25 formed by a removable assembly of a plurality of basic boards each comprising a basic digital processing circuit (15) connected to the antennas (14) of said basic board.
- 30 4. Set according to one of claims 1 and 2, characterized in that the board (1) is formed by a removable assembly of a plurality of basic boards each

comprising a basic digital processing circuit (15) connected to the antennas (14) of said basic board.

5. Set according to one of claims 3 and 4, characterized in that each basic board comprises, on three lateral sides thereof, means (21) for electrical and mechanical connection with another basic board.

10. Set according to any one of claims 3 to 5, characterized in that each basic board comprises means for configuring as master board (1m) or slave board (1e), only the master board (1m) communicating with a display and supervision means (2).

15. Set according to one of claims 3 and 4, characterized in that the basic digital processing circuits (15) of the basic boards communicate without wires between one another and/or with an external display and supervision (2).

20. Set according to any one of claims 1 to 7, characterized in that the communicating elements comprise pieces (4), figurines, cards (6) or dice (8).

25. 9. Set according to any one of claims 1 to 8, characterized in that the game board comprises several game zones respectively dedicated to different types of communicating elements (4, 6, 8).

10. Set according to any one of claims 1 to 9, characterized in that the communicating elements comprise at least one dice (8), the game board (1) comprising at least one corresponding sensor element arranged in a game zone (7) delineating a space for throwing dice.

30. 11. Set according to claim 10, characterized in that the dice (8) comprises a radio-frequency tag (10) associated with each of its faces, the different tags of the dice being provided with different identification codes (ID).

12. Set according to claim 10, characterized in that the dice (8) comprises at least one radio-frequency identification tag (10), the set comprising selection means for randomly selecting a number and for displaying the selected number on a screen, when the presence of the dice is detected.

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13. Set according to any one of claims 1 to 12, characterized in that it comprises a removable game mat (3) arranged on the game board (1) and comprising a radio-frequency tag (10) provided with an identification code (ID) representative of the corresponding game.

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14. Set according to any one of claims 1 to 12, characterized in that it comprises a screen enabling a virtual game mat to be displayed on a front face of the game board (1).

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15. Set according to any one of claims 1 to 14, characterized in that the radio-frequency readers (13) emit carrier signals (P) having a frequency of about 14 MHz.

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16. Set according to any one of claims 1 to 14, characterized in that the radio-frequency readers (13) emit carrier signals (P) having a frequency of about 125 kHz.

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17. Set according to any one of claims 1 to 16, characterized in that each individual code (ID) being unique, the set comprises means for storing the historical account of the characteristics and/or of the movements of the communicating elements (10) on the game board (1).

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18. Set according to claim 17, characterized in that the means for storing comprise an external data base accessible via Internet.

19. Set according to claim 17, characterized in that the means for storing comprise means for storing the historical account associated with a communicating element in a memory of the tag (10) of said communicating element.

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20. Set according to any one of claims 1 to 19, characterized in that the game board (1) comprises at least one enter button (19) connected to the digital processing circuit (15).

10 **21.** Set according to any one of claims 1 to 20, characterized in that the game board (1) comprises a cancel button (20) connected to the digital processing circuit (15).